



Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745



Permit No.: 33164-11-C

Plant ID 0011

Effective Date: [Click here to enter a date.](#) Expiration Date: [Click here to enter a date.](#) Permit Fee \$

American Synthetic Rubber Company, a Division of Michelin North America, Inc
4500 Camp Ground Rd
Louisville, KY 40216

is authorized to construct the described process equipment by the Louisville Metro Air Pollution Control District. Authorization is based on information provided with the application submitted by the company and in accordance with applicable regulations and the conditions specified herein.

Process equipment description:

#4 Stripper Vessels

Applicable Regulation(s): 1.05, 2.03, 2.16, 5.01, 5.15, 5.21, 5.23, 7.25, , and 5.02 (40 CFR 63 Subpart U)

Choose reference(s): 154-97-TV (R1)

Application No. 32761

Application Received 5/27/2011

Permit Writer: Steve Taylor

{Manager}
Air Pollution Control Officer

Date Sent to Public Comment 8/15/2011

Date of Final Draft [Click here to enter a date.](#)

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of applicable fees is not made after receipt of the statement of fees (SOF). The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator of the affected facility covered by this permit shall notify the District of any process change, equipment change, material change, or change in method or hours of operation. This requirement is applicable to those changes that may have the potential for increasing the emission of air contaminants to a level in excess of the applicable limits or standards specified in this permit or District regulations.
- G2. The owner or operator shall obtain new or revised permits from the District when:
- (See [District Regulation 2.16](#) for Title V sources. See [District Regulation 2.17](#) for FEDOOP sources. See [District Regulation 2.03](#) for other sources.)
- a. The company relocates to a different physical address.
 - b. The ownership of the company is changed.
 - c. The name of the company as shown on the permit is changed.
 - d. Permits are nearing expiration or have expired.
- G3. The owner or operator shall submit a timely application for changes according to G2. For minor sources only, the District does not require application for permit renewal. The District automatically commences the process of permit renewal for minor sources upon expiration. Timely renewal is not always achievable; therefore, the company is hereby authorized to continue operation in compliance with the latest District permit(s) until the District issues the renewed permit(s).
- G4. The owner or operator shall not be authorized to transfer ownership or responsibility of the permit. The District may transfer permits after appropriate notification (Form [AP-0108](#)) has been received and review has been made.
- G5. The owner or operator shall pay the required permit fees within 45 days after issuance of the SOF by the District, unless other arrangements have been proposed and accepted by the District.

- G6. This permit allows operation 8,760 hours per year unless specifically limited elsewhere in this permit.
- G7. The owner or operator shall submit emission inventory reports as required by [Regulation 1.06](#).
- G8. The owner or operator shall timely report abnormal conditions or operational changes, which may cause excess emissions as required by [Regulation 1.07](#).
- G9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G10. If a change in the "Responsible Official" (RO) occurs during the term of this permit, the owner or operator shall provide written notification (9400A) to the District within 30 calendar days of the date the RO change occurs.

Specific Conditions**S1. Standards** (Regulation 2.03, section 5.1)**a. HAP (Non-LDAR)**

For Closed System or Closed Pressurized System Emission Point (E-U1/U2-No. 4 Stripper Vessels), there are no non-LDAR HAP standards for this emission point.

b. HAP (LDAR)

There are no HAP (LDAR) standards for this emission point. (See Comment 11)

c. VOC

For Emission Point (No. 4 Stripper Vessels), the owner or operator shall not exceed 0.832 tons per year, vented out of existing Decanter (E-U1/U2-D-30M). This emission point is closed or closed pressurized systems. (Regulation 7.25, section 3) (See Comment 2)

d. TAC

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.01 and 5.21)

S2. Monitoring and Record Keeping (Regulation 2.03, section 5.1)

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

a. HAP (Non-LDAR)

i. For Closed System or Closed Pressurized System Emission Point (No. 4 Stripper Vessels), there are no HAP Non-LDAR compliance monitoring or recordkeeping requirements.

ii. The owner or operator shall monthly calculate the total plant-wide emissions of each HAP starting in January 2004. (Title V Permit # 154-97-TV(R1))

b. HAP (LDAR)

There are no HAP (LDAR) monitoring or recordkeeping requirements for this emission point.

c. VOC

- i. For Emission Point (No. 4 Stripper Vessels), there are no monitoring or recordkeeping requirements since this emission point is a closed or closed pressurized system that does not have a vent to the atmosphere. (See Comments 1 and 2)
- ii. The owner or operator shall calculate emissions from production lines by using the following formulas or other approved method: (Regulation 1.05, section 4)

U1/U2 VOC Daily Emissions = Front-End VOC Emissions + Production VOC Emissions + Back-End VOC Emissions + Fugitive/Other VOC Emissions

Where:

Front-End VOC Emissions = (Average Inlet to Control Device) x (1 - Control Efficiency)

Production VOC Emissions = ((Production x Adjusted Residual VOC) - (Production x Average Bale Residual VOC)) x (1 - Capture Efficiency (90%))

Back-End VOC Emissions = ((Production x Adjusted Residual VOC) - (Production x Average Bale Residual VOC)) x (Capture Efficiency (90%)) x (1 - Control Efficiency)

Fugitive/Other VOC Emissions = Average Solvent Consumption - (Solvent to Inlet to Front-End Control Device + Production Solvent Emissions + Solvent to Inlet to Back-End Control Device + Solvent Remaining in Product + Solvent in Waste Rubber)

- iii. For U1/U2 VOC Emission Points, for any given day when operating, the owner or operator shall maintain the following records and monthly calculate daily VOC emissions by the formulas contained in Specific Condition S2.c.ii. If not operating on a given day, a negative declaration may be entered into the appropriate record. (Regulation 1.05, section 4)
 - 1) Daily production (pounds)
 - 2) Monthly daily average inlet to front-end control device (Flare Thermal Oxidizer and/or Flare Control System)
 - 3) Daily adjusted residual VOC
 - 4) Monthly average bale residual VOC

- 5) Daily applicable control efficiencies (Flare Thermal Oxidizer and/or Flare Control System, and Boiler(s) or Regenerative Thermal Oxidizer RTO-1)
- 6) Monthly daily average solvent consumption
- 7) Daily average solvent in waste rubber

d. **TAC**

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
- ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

S3. **Reporting** (Regulation 2.03, section 5.1)

The owner or operator shall submit compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement. Duplicative reporting is not required. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11. (See Comment 15)

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete”.
- Signature and title of the responsible official of the company.

a. **HAP (Non-LDAR)**

i. **HAP Emissions Quarterly Reports**

The owner or operator shall report quarterly the total plant-wide emissions of each HAP for each month in the quarter, starting with the first calendar quarter of 2004. This report is due no later than 30 days following the end of the calendar quarter. This HAP emissions quarterly reporting shall be included in the BD/HAP/VOC Quarterly Report, which includes, in addition to this HAP emissions quarterly reporting, the 1,3-Butadiene Emissions Quarterly Reports and the VOC Combustion By-Pass Activity Quarterly Reports (Title V Permit 154-97-TV (R1)) (See Comment 14)

ii. **Title V Semiannual Reports (Non-LDAR HAP)**

There are no Non-LDAR HAP Title V Semiannual Reporting requirements.

iii. **Subpart U MACT Non-LDAR HAP Periodic Reports**

The owner or operator shall submit a periodic report semiannually no later than 60 days after the end of each 6-month period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. (40 CFR 63.506(e)(6)(i)) (See Comment 14)

If none of the compliance exceptions in 40 CFR 63.506(e)(6)(iii) through (e)(6)(ix) occurred during the 6-month period, the Periodic Report shall be a statement that there were no compliance exceptions as described in 40 CFR 63.506(e)(6)(ii) for the 6-month period covered by that report and that none of the activities specified in 40 CFR 63.506(e)(6)(iii) through (e)(6)(ix) occurred during the 6-month period covered by that report. (40 CFR 63.506(e)(6)(ii))

The periodic report shall contain the following information: (40 CFR 63.506(e)(6)(iii))

- 1) All information specified in 40 CFR 63.122(a)(4) for storage vessels, 40 CFR 63.117(a)(3) and 63.118(f) and 63.485(s)(5) for continuous front-end process vents, 40 CFR 63.492 for batch front-end process vents and aggregate batch vent streams, 40 CFR 63.499 for back-end process operations, 40 CFR 63.104(f)(2) for heat exchange systems, and 40 CFR 63.146(c) through 63.146(g) for process wastewater. (40 CFR 63.506(e)(6)(iii)(A)) (See Comment 3)

40 CFR 63.146(c) through 63.146(g) applies to Group 1 Process Wastewater, of which the source has none. This reporting citation is thus not applicable to the source. (See Comment 8)

- 2) Notification if a process change is made such that the group status of any emission point changes from Group 2 to Group 1. (40 CFR 63.506(e)(6)(iii)(D)(2))
- 3) Notification of a change in the primary product of an EPPU, in accordance with the provisions in 40 CFR 63.480(f). This includes a change in primary product from one elastomer product to either another elastomer product or to a non-elastomer product. (40 CFR 63.506(e)(6)(vi)) (See Comment 9)

- 4) There are no HAP MACT Non-LDAR Periodic Reporting compliance requirements for Emission Point (No. 4 Stripper Vessels).

iv. **Other Subpart U MACT Non-LDAR HAP Reports**

There are no other Subpart U MACT Non-LDAR HAP Reporting requirements.

b. **HAP (LDAR)** (See Comment 11)

i. **HAP LDAR Quarterly Reports**

There are no HAP LDAR Quarterly Reporting requirements.

ii. **Title V Semiannual Reports (HAP LDAR)**

There are no HAP LDAR Title V Semiannual Reporting requirements.

c. **VOC**

Title V Semiannual Reports (VOC)

For Emission Point (No. 4 Stripper Vessels), there are no VOC Title V compliance reporting requirements for this Emission Point.

d. **TAC**

Within 6 months of a change of a raw material, the owner or operator shall submit the re-evaluated EA demonstration to the District.

e. **Startup Notification**

The owner or operator shall provide written notification to the District of the actual date on which each new No. 4 Stripper Vessel began normal operation. This written notification shall be post-marked within 30 days after normal operation has been achieved.

Comments

VOC

1. The potential uncontrolled VOC emissions increase resulting from this project will be less than 40 tons per year, there will be no significant emissions increase, as defined in Regulation 2.05, *Prevention of Significant Deterioration of Air Quality* (Appendix A). Therefore, PSD/Non-Attainment NSR does not apply to this project, and the source is not required to accept an emission cap or an operation limit to avoid the requirements.

2. Emission Point E-U1/U2-No. 4 Stripper Vessels are closed or closed pressurized systems, therefore the District has determined these are VOC BACT for Regulation 7.25. There are no monitoring, recordkeeping, or reporting requirements for this emission point.

HAP (Non-LDAR)

3. 40 CFR 63.485 (c), (o), (p), (q), (s), and (v) do not apply to this source as of the effective date of this permit. ASRC operates its reactors in a continuous mode, and is therefore, by the definitions in 40 CFR 63.482, a continuous process. There are consequently no Batch Front-End Process Vents at this source.
4. ASRC manufactures PBR and SSBR by the solution process and is classified as an existing source, as defined in 40 CFR 63.480, for the purposes of 40 CFR 63 Subpart U. None of the three criteria cited in 40 CFR 63.480(a)(3) that define a new Subpart U affected source applies to ASRC and the replacement of No. 4 Stripper Vessels. Therefore, ASRC's existing Subpart U MACT affected source remains an existing Subpart U affected source following this construction.
5. ASRC's back-end process operations comply with the applicable 40 CFR 63 Subpart U residual organic HAP limitation of 40 CFR 63.494(a)(2)(i) through the use of stripping technology, and compliance is demonstrated through sampling. When stripping technology alone does not result in meeting this applicable residual organic HAP limitation, the combination of stripping technology and a control device (one or both of the coal-fired boilers or the Regenerative Thermal Oxidizer RTO-1) is used, as needed, to demonstrate compliance with this limitation.
6. The two coal-fired boiler(s), used as needed, when stripping technology alone does not result in meeting the residual organic HAP limitation specified in 63.494(a)(2)(i), are rated at 212 MM Btu/hr heat input capacity each. In accordance with 63.496(b)(7) and (b)(7)(ii), ASRC is not required to conduct a performance test for the two coal-fired boilers to determine outlet organic HAP emissions. ASRC did perform a test in accordance with 40 CFR 63.496(b) on December 8, 1998. The results of this testing were submitted as part of the Notification Of Compliance Status dated November 13, 2001. Furthermore, the control efficiency of each boiler is assumed to be 98%, which is the nominal control efficiency, pursuant to 63.496(b)(8)(ii).
7. The Regenerative Thermal Oxidizer RTO-1 was performance tested on October 29, 2003 in accordance with the applicable provisions of 40 CFR 63.496. The compliance test report, which was submitted to the District on December 12, 2003, showed the average control efficiency of the Regenerative Thermal Oxidizer RTO-1 to be 99.56% at the average minimum combustion temperature of 1413°F. Re-testing of RTO-1 occurred on September 5, 2008, at which time a control efficiency of 99.79 % was demonstrated at an average minimum combustion temperature of 1549 F. The report for this testing was submitted to the District on November 7, 2008.
8. For the 40 CFR 63 Subpart U MACT Storage Vessels, Continuous Front-End Process Vents, and the Process Wastewater Discharge Group status, the MACT Non-LDAR

Notification of Compliance Status was submitted on November 13, 2001, and it contained the information required by 40 CFR 63.506(e)(5). ASRC has no Subpart U MACT process wastewater as defined in 40 CFR 63.482.

9. The Elastomer Product Process Unit (EPPU) at the source (Emission Unit U1/U2) is designed and operated solely to produce products meeting the definition of Polybutadiene Rubber/Styrene-Butadiene Rubber by solution in 40 CFR 63.482. Accordingly, the source has identified its primary elastomer product as Polybutadiene Rubber/Styrene-Butadiene Rubber by solution in its Notification of Compliance Status submittal dated November 13, 2001. Should the source change its primary elastomer product to either another elastomer product or to a non-elastomer product, the source will be required to provide notification of this change to the District and to U.S. EPA per 40 CFR 63.506(e)(6)(vi), in accordance with the provisions in 40 CFR 63.480(f).
10. 1,3-Butadiene is not associated with the material processed through the new No 4 Stripper Vessels. Therefore, the 1,3-Butadiene standards, as well as the associated monitoring, recordkeeping and reporting requirements, of ASRC's Title V Operating Permit No. 154-97-TV(R1) are not applicable to this construction.

HAP (LDAR)

11. No. 4 Stripper Vessels is not subject to the 40 CFR Part 63 Subpart U MACT equipment leak (LDAR) provisions of 40 CFR 63.502, which references 40 CFR Part 63 Subpart H, with the exceptions as noted in 40 CFR 63.502(b) through (m). This is because the subject equipment does not meet the definition of "in organic HAP service" specified in 40 CFR 63.161 of 40 CFR Part 63 Subpart H. Consequently, there are no LDAR standards, and no LDAR monitoring, recordkeeping or reporting requirements.

TAC

12. The potential uncontrolled TAC emissions have been determined by the District to be de minimus.

Miscellaneous

13. Definition of "Day" for U1/U2 is the time period from 6 am to 6 am, except for the Flare Thermal Oxidizer and the Flare Control System, where the time period is from midnight to midnight.
14. The following is a summary of the report periods and due dates for the reports required by this Emission Unit.

<u>Report Description</u>	<u>Report Period</u>	<u>Report Due Dates</u>
1st Semiannual for TV Permit	January 1 through June 30	August 29
2nd Semiannual for TV Permit	July 1 through December 31	March 1 ¹

1st Semiannual Non-LDAR	November 16 through May 15	July 14
2nd Semiannual Non-LDAR	May 16 through November 15	January 14
1st Semiannual for LDAR	January 1 through June 30	August 29
2nd Semiannual for LDAR	July 1 through December 31	March 1 ¹
1st Quarter for BD/HAP/VOC ²	January 1 through March 31	April 30
2nd Quarter for BD/HAP/VOC ²	April 1 through June 30	July 30
3rd Quarter for BD/HAP/VOC ²	July 1 through September 30	October 30
4th Quarter for BD/HAP/VOC ²	October 1 through December 31	January 30

Notes:

¹ The date for leap years is February 29.

² Includes the 1,3-Butadiene Emissions Quarterly Reports; the HAP Emissions Quarterly Reports; and the VOC Combustion By-Pass Activity Quarterly Reports, all required by Title V Operating Permit No. 154-97-TV(R1).

15. Information required to be submitted in the HAP (Non-LDAR) Periodic Reports is not required to be also submitted in the Title V Semiannual Reports. If no deviations occur in a reporting period, the owner or operator shall report a negative declaration in the appropriate report.
16. Construction permit fees are based on emissions of less than 5 tons per year of VOC and subject to a MACT.